

# the *Citrus Industry*

SEP 11 1950



W. F. ROBINSON, LEESBURG,  
CHAIRMAN FLORIDA CITRUS COMMISSION

LIBRARY FLA. AGRICULTURE EX. STA.  
GAINESVILLE, FLA. 1-51

# Come Wind, Rain, Drought or Freeze

---

---

Citrus trees that are healthy and well cared for will withstand any of these normally disastrous occurrences much better than trees which have been improperly or insufficiently provided with adequate quantities of proper plant foods.

We will grant that it is conceivably possible to over-feed a grove just as it is possible to under-feed one, but such an occurrence seldom happens, because neither the grower nor the conscientious field man has any desire to gorge trees with unnecessary plant foods. More often it is the grove that looks good which has its nourishment curtailed at a time when it is essential that sufficient plant food be provided to keep the grove in really tip-top shape.

Our service men are experts in knowing what trees require and they will honestly and sincerely recommend only the formulas and the amounts of fertilizer needed to keep our customers' groves in the finest condition.

Which undoubtedly accounts for the large number of our customers who seek and are guided by our field service men's counsel season after season. The results prove the efficiency of such procedure. Large crops and quality fruit invariably are reflected in profitable returns.

Then, too, we ask that you remember that our fertilizers are delivered in our own trucks direct to our customers.

**Florida**  **Favorite**  
**FERTILIZER, INC.**

Old Tampa Road

Lakeland, Florida

---

---

# Citrus Insect Control

## For September 1950

J. T. GRIFFITHS AND W. L. THOMPSON  
CITRUS EXPERIMENT STATION,  
LAKE ALFRED, FLA.

A citrus grower is faced with two primary problems as the month of September rolls around. As is usual at this time of year, rust mites are increasing. Many growers have been forced to use sulphur in August and many more will do so during September. The same old precautions that have applied in the past are worth reiterating at this time. Do not use lime-sulphur on early varieties of oranges. Be sure to do a thorough job when applying sulphur. Use enough sulphur per tree and be sure that good coverage is obtained. This applies to either dust or spray operations. Rust mites have been so severe during this spring and summer that as many as four sprays have already been applied in some groves.

This points up the fact that rust mites have generally been a greater problem this year than for the past few years.

Many reports have been received at the Citrus Experiment Station concerning the very large build-up of Florida red scale in groves scattered throughout the entire citrus area. This seems to be a general condition, and is not confined to any one locality or to any one group of groves in any locality. It appears definite that this is the worst red scale year since 1946, and it bids fair to be more critical by fall. Although purple scales are also present in large numbers of groves, they have been overlooked because of the alarming numbers of Florida red scales. It behooves all growers to watch both of these species since both are present in large numbers in many groves.

It seems worth-while to discuss some of the reasons for the heavy infestations of red scales this year. The growers who used oil have blamed the oil which they have used, and the growers who used parathion have blamed the parathion which they used. It is our opinion that neither of these is the basic reason for failure to get control. The primary cause probably lies in weather. The mild 1949-50 winter

was very favorable for a build-up of red scales. They started to reproduce early this year, increased steadily throughout the spring and summer months, and have already had four generations.

The population trends in some plots at Lake Alfred may be of interest. At the present time purple scale populations are decreasing in these unsprayed plots, but red scales are still on the increase. This is somewhat abnormal as ordinarily both red and purple scale populations tend to decrease or increase at the same time. This shows a differential between the behavior of red and purple scales this year and may help to explain why red scales are a greater problem than for some years past.

In the case of parathion spray failures, the applications of 1 lb. of 15% parathion per 100 gallons in the post-bloom spray were in many cases applied during March or April. These were often not followed by the second application until late July or early August. In such cases more than two complete generations of red scale were passed between spray operations and too many scales were present when the second spray was applied.

Another factor to consider in the use of parathion and its apparent failure to control red scale this year is the fact that the recommendations laid down for the use of parathion were not always followed. It was suggested in the Citrus Spray Program that parathion could be used in two applications; each of which would use 1 lb. of 15% material per 100 gallons of spray. The recommendation was based upon the premise that very few scales were present in the groves at the time the spray was to be applied. The recommendation also stated specifically that for heavy infestations of scale a minimum of 1-2/3 lb. of material should be used per 100 gallons of spray. This part of the recommendation was ignored by many growers, and although heavy infestations were present, only 1 lb. of material

was used. This was true of the post-bloom operation, and it has again been true during the summer scale program. Many growers have continued to use inadequate amounts of material and then are unable to understand why satisfactory control was not obtained.

In a similar vein, many growers have felt that they did not need to be as careful about coverage with parathion as they would be with oil. Consequently, they have driven spray machines faster, they have attempted to use double-heads on Speed Sprayers, and in some cases have applied only that amount of material per tree which would have been used in a normal sulphur spray. All information to date indicates that for good scale control as thorough coverage must be obtained with parathion as with oil. Growers should not expect to get good results if they do not make a thorough application.

No infestations of bird-grasshoppers have been reported to us as yet on citrus, but a few sporadic outbreaks may be expected. Growers in potentially infested areas should check their groves. If grasshoppers are common, clean cultivation practices should be started immediately. It is to be expected that the second generation of this grasshopper will be hatching by the first of September.

For additional information consult the Florida Citrus Experiment Stations at Lake Alfred or Fort Pierce.

SINCE 1909



## X-CEL SERVICE

X-CEL Service is backed by 40 years of research and practical experience in Florida. Put it to work for you.

Feeds — Seeds  
Insecticides — Fertilizers

JACKSON GRAIN CO.

TAMPA, FLORIDA

---

Many of Florida's  
Largest Industrial Concerns  
Have Us Do Their Printing . . . .

Special Ruled Forms  
Catalogues  
Office Forms and Stationery  
In fact anything that's printed  
Can be done properly  
and economically in our plant

Write us for details and quotations

**Bartow Printing Company**  
550 North Broadway  
P. O. Box 120  
Bartow, Florida

---



Publication office at Bartow, Florida. Entered as second class matter February 16, 1920, at the post office at Tampa, Florida, under the act of March 3, 1879. Entered as second class matter June 19, 1933, at the post office at Bartow, Florida, under act of March 3, 1879.

## Program Of Florida Citrus Mutual

I am deeply grateful and very happy to have this opportunity to address you on this subject, "Program of Florida Citrus Mutual."

Florida Citrus Mutual was born of necessity. Years of exceedingly low prices had clearly demonstrated the need for a practical and equitable solution to the Florida citrus problem. It was convincingly evident to growers, shippers, business men and bankers that the citrus industry would have to abandon its cut-throat, disorganized competition if it wanted to survive and prosper.

Let me briefly recall to you the conditions that existed prior to the creation of Mutual. I make no apology for recalling them, because it is so easy to forget in times of prosperity the conditions that existed during years of adversity. In the 1947-'48 season, the Florida citrus crop sold for \$120,000,000 less than it had brought for the season just three years prior. This meant an enormous loss to the economic life of the whole state—one hundred, twenty million dollars less in circulation in Florida. So desperate were conditions that the Florida Benkers Association spent many months making a study of procedures within the industry. Their report issued in July, 1948, had this to say, and I quote:

LACY G. THOMAS, Groveland,  
PRESIDENT OF FLORIDA CITRUS  
MUTUAL, AT CITRUS GROWERS  
INSTITUTE, CAMP McQUARRIE

"The brokers and dealers in the markets have no confidence in the stability of Florida citrus prices or the system under which our fruit is sold. As a result, markets are frequently and almost regularly over-loaded, with disastrous results to the price structure. The Florida citrus industry is a loose, sprawling, rapidly expanding, unorganized, unhappy and sick industry."

This was a very accurate description of the citrus industry at that time. The plight of every citrus grower was serious and was disastrously reflected in the business and banking life of the state. Everyone recognized that citrus production was an unhappy and most unprofitable business during a period when most other industries were enjoying great prosperity.

All informed observers and thinking persons agreed that there was one fundamental reason for the critical situation facing Florida. It was the disorderly marketing methods practiced in the sale of our fruit. Orderly marketing could not possibly function in an industry

which then licensed over four hundred selling agencies to handle its production, without making some provision for coordination of their efforts. Such a situation creates marketing confusion. This utter lack of coordination served to defeat the development of price levels profitable to the grower, shipper and canner. In northern markets, buyers of Florida citrus were naturally turning to other sources which gave them cooperation and protection on their purchases.

Thinking growers, packers and canners, whose statements were echoed and re-echoed by business men and bankers, declared emphatically that the industry must organize its operations under a practical, business-like, working program, so that the large and ever increasing crops produced by our trees might be marketed at a profit to all.

From this desperate situation—in which growers were going in debt, some losing their property, others facing bankruptcy; in which business men in the citrus belt were in many cases facing disaster because of the absence of the fruit grower's dollar—there arose an insistent cry that **something** must be done. One thing on which the majority could readily agree was

that the industry must be brought into an organized operating unity. The bankers had definitely stated what none could deny, that the citrus industry was "loose, sprawling and unorganized." Crops could not possibly be marketed profitably as long as growers, shippers and canners operated separately and independently, each deeply concerned about his own welfare and failing to realize that his success was inextricably intermingled with the success of the whole industry. Necessity demanded that all of these come together, recognize their common problems and work together for their practical solution.

Out of this urgent need and after long months of earnest endeavor on the part of hundreds, Florida Citrus Mutual came into being and during the last eighteen months has clearly demonstrated that it is the answer and the only answer to Florida's "loose, sprawling and unorganized" citrus industry. In this statement, I do not want to be misunderstood, because I would not discount by one word the splendid work being done by other agencies within the citrus industry.

By state and federal law, standards of quality are maintained and rigidly enforced. No one questions the need for and the practical value of our Inspection Department. This agency carefully and constantly demands and insists upon the quality and maturity of all fruit shipped. There may at times be difference of opinion on the standards set, but never a doubt of the need and value of the program which has done so much to make Florida citrus fruit acceptable to the consumer.

By state law, there is a per-box assessment on every box of citrus fruit, to be used for advertising and promotion of its sales. This fund is capably administered by the Florida Citrus Commission and I can not speak too highly of the success achieved in making the people of America citrus conscious. My hope is that soon the Citrus Commission may have larger funds to expand the splendid program that they now operate. Every grower in the state owes an ever increasing debt of gratitude to the Citrus Commission for their development of frozen concentrate which has brought a prosperity to the industry that it could not have enjoyed had the Citrus Commission

not, through its research department, set this amazing program in operation.

Neither would I forget the splendid work being done by the Growers Administrative Committee and the Shippers Advisory Committee. Throughout the years, their program has been exceptionally helpful and profitable to every citrus grower.

These agencies functioning in their particular departments and functioning well, Florida Citrus Mutual was created to do the things that none of these agencies could do, in order to complete a profitable program. With these preliminary remarks, let me get down to the topic which has been assigned to me, "The Program of Florida Citrus Mutual."

Someone may ask, "Why could not the shippers and canners of Florida join together and control the distribution of the crop and establish minimum prices that would be profitable?" This seems a fairly reasonable and logical question and the answer is that they could not do it because it would have been a violation of the Sherman Anti-Trust Law. So, no matter how willing and anxious the Florida shippers and canners might have been to improve the situation, to organize in order that the industry might be more profitable to them as well as to the grower, the Sherman Anti-Trust Law stood in the way and said, "No, gentlemen, you can't do it."

Fortunately for citrus growers, among the federal acts is one that is known as the Capper-Volstead Act, which says in substance that farmers, the actual producers of agricultural products, may join together and take such united action as to them seems best, to secure and maintain a reasonable price for the products that they grow. Only the growers, under the protective provisions of the Capper-Volstead Act, could join together, free from the restrictions of the Sherman Anti-Trust Law, and provide a united controlling program by which growers, shippers and canners could secure higher returns for the citrus fruit of the State.

The program of Florida Citrus Mutual may be very concisely and definitely stated as follows: "To unite the growers of citrus in Florida in order that they may enjoy and use the immunities granted by

federal law, only to producers of agricultural products. In Mutual, the growers of Florida may, protected by the Capper-Volstead Act, develop and operate a marketing program profitable to all, free from the restrictions of the Sherman Anti-Trust Law. This is the program of Florida Citrus Mutual. Its strength lies in its grower membership, because only growers are permitted under the law to do the things that Mutual is doing to make citrus growing more profitable.

May I pause at this stage to urge that every citrus grower in the State be loyal to this organization that has done so much for him, and to plead that those who are not yet members of Mutual speedily avail themselves of the opportunity in order that they, too, may add their strength to the organization and with their aid enable it to achieve even greater success than it has so far had.

Someone might ask, "How does Mutual operate?" I quote from a small booklet, entitled, "What About Mutual?" "Ultimate control of Mutual is in the hands of its board of directors. This board consists of twenty-one men, three from each of the seven Citrus Commission districts, and these are elected by the grower members in each of the districts. Each grower has one vote, regardless of the size of his citrus holdings. The directors, themselves, must be growers and the directors do reflect the growers' thinking and desires by laying down broad marketing policies and by promulgating the necessary rules and regulations to carry out these policies for the benefit of all. The board appoints management, which in turn, selects personnel and suggests facilities through which the policies and objectives of Mutual can be realized. Thus, the growers elect the board of directors; the board of directors develop the plans of operation, and management executes the plans necessary to effectively carry out Mutual's program."

Buyers, shippers and processors may be members of Mutual, only if they are also citrus growers. As buyers, shippers and processors, they are directly tied in with Mutual's program through handler's contracts which every handler of Mutual fruit must sign. In this contract, the handler agrees to be governed in the sale, shipping and distribution of all fresh citrus mar-

keted by the handler by the rules, regulations, orders and instructions issued by Mutual for the purpose of regulating the marketing and distribution of Florida citrus fruit, with this very definite purpose; To provide for an orderly and equitable distribution of Florida citrus fruit, both as to time and place, and the obtaining of prices therefor that are fair to both consumers and producers in view of crop and marketing conditions. Shippers and processors, because of their experience and close contact with marketing problems, make a further and very valuable contribution to the successful operation of Mutual by occupying places on certain of the important committees which are appointed by the grower board of directors. These committees serve as skilled advisors to the board. Prominent among such committees are the Allotment Committee and the Terminal Markets Committee. Through these committees the grower organization derives the benefit of the experience, training and skill of those men who are daily engaged in evaluating the complex marketing problems.

As good Americans, proud of our heritage, we sing, "My Country, 'tis of thee." Let me urge upon you the same attitude toward Mutual, saying, "My organization." Talk of Mutual in the first person and say, "we," rather than the third person, "they," because Mutual is your organization, you created it, you govern it, its future is in your hands. In creating and setting into operation Florida Citrus Mutual, the citrus growers of this great state took a step forward from which they can not retreat without paying a heavy penalty. On the citrus groves of the State, there hangs for the coming season an estimated crop in excess of a hundred million boxes and with the increased production of young trees not yet in full maturity and the new acreage that has been planted out, unless some great disaster occurs, not a few years from now a hundred million boxes will be a very short crop in Florida. Unless we maintain the orderly marketing and distribution that can only be possible through Mutual, those large crops will not be marketed with profit to those who produce them.

There are many factors that govern the income from agricultural crops and Florida citrus will have

its good years and its years that are not so good, but in Florida Citrus Mutual we have the instrument through which citrus growers of Florida may receive the highest returns for their crop and these returns will always be affected by the following factors:

1. The quality and consumer acceptability of the product.
2. The volume offered for sale.
3. The volume and price of competing products.
4. The purchase power of the Nation.

5. And this is the most important of all: The orderly distribution of the crop, both as to time and place, by an efficient, well advised alert and earnestly operated and grower controlled program in Florida Citrus Mutual.

Citrus Florida dare not go back to the "loose, sprawling, unorganized," pre-Mutual days. Our hope, safety, and financial security are dependent upon a strong, intelligently conceived and effectively administered "Program of Florida Citrus Mutual."

#### PUBLICIZING FROZEN CONCENTRATED GRAPEFRUIT JUICE

Looking to future development of one of the newer items in the frozen foods line, the Florida Citrus Commission is carrying on an intensive advertising and promotion campaign for frozen concentrated grapefruit juice, Dawson L. Newton, Commission advertising manager reported.

The program was set up to blanket eight principal markets where heaviest distribution of the new product has been made. Radio commercials—spot, stationbreak, and participation shows—are being used in the campaign.

New York, Philadelphia, Boston, Detroit, Chicago, Pittsburg, Baltimore and Washington are the markets being covered at this time. The Commission advertising manager said these areas were chosen with the advice of packers distributing the grapefruit concentrate.

"Because this is one of the newest citrus products, there has been little advertising of frozen concentrated grapefruit juice up to this time, either by the Commission or by the individual packers", Newton explained. "About a million and a half gallons of this product went into cans this season, only seven or eight per cent as much as the frozen orange concentrate pack, and

the Commission believes this is a strategic time to encourage the consuming public to sample this fine, new item in the Florida citrus line. With acceptance of the product established, packers next season should be encouraged to use a much greater volume of grapefruit than was used this year."

The grapefruit campaign which is backed by strong merchandising support, is somewhat similar to a recent promotion staged by the Commission in behalf of canned tangerine juice.

#### SAFETY IS YOUR PROBLEM

The President's Conference on Industrial Safety, the Governor's Safety Council, and the Florida Industrial Commission's Department of Industrial Safety with the Florida Highway's Safety Division, are joining forces in an all-out effort to make the people of this state and the nation safety minded.

This is a project in which all should join and the Citrus Industry is glad to cooperate and devote whatever space may be available to this worthwhile cause.

When it is considered that four men and women in the United States suffer disabling injuries every single minute of the day it is obvious that occupational accidents are among the nation's major problems.

Injuries and deaths by accident are responsible for the loss of more working days and years than any disease according to the Association of Casualty and Surety Companies. Among our male population only heart disease and cancer approach the accident toll. These diseases strike mostly among the aged and middle-age class, while accidents have no respect for age and hit young and old alike.

New medical and hospitalization facilities have and will continue to reduce the disease toll, but only carefullness, caution and safety mindedness of the individual will reduce the accident fatalities and injuries. This problem, therefore, becomes "Everybody's Business."

This being a personal problem it should appeal to each of us to remember that personal safety requires that each of us try in every conceivable manner to avoid taking chances ourselves, and use every precaution against being the cause of injury to others.

On the highways, in the shop, at business and in the home, "Think Safety" and avoid the draft in the "statistical army." At least you will not become a volunteer.

# Rail Officials Tell Plan To Improve Refrigerator Car Supply

Marked progress toward mutual understanding between railroad and private car companies and fresh fruit and vegetable shippers and receivers with regard to reefer requirements was made at a joint meeting at the Carlton Hotel in Washington of railroad officials and members of the Refrigerator Car Committee of the United Fresh Fruit and Vegetable Association. Present car supply, car needs, car building plans and the somewhat differing viewpoints of railroad and produce industry men were explored at a two and a half hour session. Fifty two were present.

Every major railroad and car company was represented by policy making officials. The I.C.C., Association of American Railroads and U. S. Department of Agriculture had top spokesmen present. United was represented not only by members of the Refrigerator Car Committee headed by John N. Kelly of New York, but also by Harold E. Bryant of Presque Isle, Maine, association president, C. W. Kitchen, executive vice president, and members of the United staff.

The meeting climaxed separate meetings held during the week by the Refrigerator Car Section of the A.A.R. and the United Refrigerator Car Committee.

The United committee has been working on refrigerator car supply and on reefer design for the last six years. It long ago forecast the present car shortage. The present meeting was scheduled before the Korean war situation further complicated the scarcity of reefers.

## Plain Talk on Both Sides

There was plain but friendly talk on both sides. Mr. Kelley expressed the opinion the present fleet of serviceable reefers is 35,000 short of what it should be. He estimated there are 65,000 cars fit for the fresh fruit and vegetable service and there should be 100,000. Rail estimates of serviceable cars are slightly larger, but the difference is negligible.

On the other hand, railroad men voiced the opinion there were

enough cars so far this year to take care of all requirements except for short periods in a few spots. They asked for assurances that the share of produce transportation given the railroads will be increased. They pointed to what they termed repeated forecasts that more and more of the haulage of our products will be done by trucks and boats.

## Defeatist Attitude, Says Bryant

President Bryant of the United, in summing up at the end of the conference said: "The railroads are taking a defeatist attitude. I get the impression that the rail spokesmen feel they are losing the battle with trucks and can't do much about it. We want you to know that you are dealing with an industry that does not want to move its products by truck. But you are also dealing with an industry that has to move its products to market when the products are ready and the market will take them. The future trend to or away from trucks depends largely on car supply."

## Substantial Building Program

The railroads and private car companies took the warps off programs of car building, rebuilding and repair that are much larger than previously revealed. Even C. W. Taylor, manager of the Refrigerator Car Section of A.A.R. said the building program unveiled at this meeting was news to him.

Line after line reported thousands of reefers being built or on order, and most of them are modern fan cars. A still larger number of wooden cars are being rebuilt with steel bodies. Substantial repairs are being made on thousands of others.

No attempt was made to arrive at an over-all national figure on the building program, since the statistics will be compiled in due time by A.A.R. However, Chairman Kelley of the United Refrigerator Car Committee told the meeting he was much encouraged by the good news. He added, however, that even if the entire program is carried out, reefers will still be short of the neces-

sary 100,000. He pointed out what everyone present realized, that the war situation is likely to interfere with car building. Steel, especially, may be so short as to prevent carrying out the reefer construction plans.

## Need Better Use of Present Cars

All present agreed that better use should be and can be made of the existing car supply.

Homer King, director of Service of the I.C.C. summed up the situation this way; "We are facing worse difficulties than if we were in a major war. In wartime, certain things could be done to increase use of cars which cannot be done now because people wouldn't stand for them. The only way we can get by with the limited number of cars we have is to make the best possible use of the equipment. Shippers and receivers can load and unload sooner; the railroads can pick up the cars and get them on the road sooner; circuitous routing can be reduced, thus saving many cardays; and holding cars for diversion can be reduced. We need to get word down to the grass roots in the produce industry and in the railroads that idle car time must be cut way down."

## Voluntary—Or Else

Mr. Kitchen pointed out that if all concerned do not take voluntary action to get more use out of the car supply, they can't complain if the government forces them to take the necessary steps.

He said there are already heavy penalties on shippers and receivers for holding cars overtime, but there are no penalties on the railroads for doing the same thing. He and others suggested the railroads speed up their car-handling practices.

On the other hand railroad representatives cited figures that average movement of refrigerator cars is 100 miles a day, which they said means there is very little delay.

## Clean Cars Save Time

A point that is often overlooked by car users was brought up by a railroad representative. Cars should

(Continued on page 18)

# "The Role Of The Florida Bankers Association In The Citrus Industry"

T. G. MIXSON  
AT CITRUS GROWERS INSTITUTE  
CAMP McQUARRIE

Today is a much brighter day than when I appeared before you three years ago, yes, even two years ago when you were not getting enough for your citrus to pay for production. You will recall that the bankers of the State, through their Association, took the initiative and urged the production of quality fruit and then the marketing of it in a businesslike manner. I am glad to say the growers and allied interests did that. It is of little consequence to go into all the details but it took many months of effort, unlimited thought, constructive planning, and sound administration to bring about the successful fruit year just closed. I know that all do not agree that some of the things which have been done were the best for us; however, if those who know citrus culture and marketing in its highest form will hold out for an honest solution, eliminating selfishness, we will ultimately gain the best for the industry as a whole.

I noticed in the press recently where the Governor was quoted as giving the Citrus Code, passed by the 1949 Legislature, major credit for Florida citrus growers' most successful season in history. He was further quoted on other phases, which I will refer to from a release a few days later by Robert C. Evans, General Manager of the Citrus Commission. There are several factors which made this year such a good one. To pick out one and say it was the major reason is a mistake when the others were just as important. I like the way Mr. Evans puts the matter before us which in part is as follows:

"Florida raised and sold approximately three times as much fruit this season as it did when the commission was formed 15 years ago to promote use of citrus products. Florida now produces more oranges, grapefruit and tangerines than all other states combined.

"Factors contributing to this highly successful season include the first year of operation of the Florida Citrus Code of 1949, the first

year of operation for Florida Citrus Mutual, the tremendous increase in the production and consumption of frozen concentrated citrus juices, the advertising program of the Florida Citrus Commission and the influence on prices of the severe freeze in competing citrus areas.'

Expanding these points—

"The Florida Citrus Code of 1949 became operative for the first season and the higher quality standards for citrus fruit and products are generally credited as being one of the leading factors in the record prices received by growers. Wholesalers, receivers and retailers were in accord in expressing their satisfaction with the high quality of Florida citrus.

"Florida Citrus Mutual, a growers' organization, with membership representing a major portion of the production, was in operation for the first season. Its activities in establishing minimum prices and prorating shipments from time to time were one of the important factors that contributed to the very satisfactory prices received by growers.

"The hard-hitting advertising and sales promotion program of the Florida Citrus Commission has been attributed by many of the sales managers as being one of the best years and was a big factor in stimulating sales and expanding distribution of the Florida citrus crop.

"The tremendous increase in the production, distribution and consumption of frozen concentrated orange juice had a significant effect on supply and demand conditions for oranges. Production of this product increased by more than 100 per cent. This, together with the appreciable packs of frozen grapefruit and blended juice concentrates, firmly established the concentrate industry as one of the most important outlets for Florida citrus fruit.

"Another important factor was

nature, which cut crops to a point where there was constant demand for the supply available.

"The national survey of grapefruit was far below normal because of the severe freeze in Texas early in 1949 and the Florida hurricane. The production of oranges was reduced by severe freezes in California early in 1949-50 season."

As a representative of the Bankers Association and as banker and personal friend to many growers, I want to impress upon you the continued importance of producing quality fruit and selling it when it is ripe. With future years likely to bring larger production, I also want to urge you to hold on to your Florida Citrus Mutual. I saw in April of this year where prices may have been severely depressed had it not been for the Florida Citrus Mutual. If ever it is proven that you are not getting the best results from this organization, change your administrators, but again I say, hold on to the Mutual.

Your bankers are happy to have had the privilege of contributing to a program designed to the production of quality fruit and its orderly marketing.

## ANOTHER NEW INSECTICIDE

An insecticidal chemical of potent qualities has recently been found in the roots of a common native perennial weed, commonly known as ox-eye, a member of the sunflower family, by Martin Jacobson, a USDA chemist employed on a project under the Research and Marketing Act of 1946.

Early experimental trials with the new insecticide showed it to be appreciably more toxic to houseflies than pyrethrum, which is the standard of comparison in laboratory tests. How difficult it may be to obtain the chemical from the natural weed source, and manufacture it commercially, is not known. The effect of the chemical on insects other than housefly, or what it does to man or animals, plants or soils, are subjects still to be explored.

# The Citrus Industry

with which is merged The Citrus Leaf  
Exclusive Publication of the Citrus Growers and Shippers

Publication Office 550 North Broadway, Bartow Florida 269  
Telephone - - - - -

Published Monthly By  
**ASSOCIATED PUBLICATIONS CORPORATION**  
S. L. FRISBIE - - - - - President-Editor  
S. LLOYD FRISBIE - - - - - Sec.-Treas.-General Manager  
LOYAL FRISBIE - - - - - Business Manager  
RICHARD F. FRISBIE - - - - - Advertising Manager  
A. G. MANN - - - - - Production Manager

Subscription, \$1.00 per year in advance  
Outside Continental United States, \$2.00 in advance

## CITRUS GROWERS INSTITUTE

As this issue of The Citrus Industry goes to press, the Citrus Growers Institute at Camp McQuarrie is coming to its close. These annual gatherings of citrus growers, packers, canners and concentrators bring together many of the best minds and most active workers along all lines of citrus endeavor. The gathering just coming to its close was one of the most successful in its seventeen years of activity.

Speakers of prominence presented every phase of the industry from the grower to the concentrator. Grove practices, packing house problems, marketing problems, the long range outlook, the role of various organizations representing growers, the trends in the industry as they affect the small grower, were presented and discussed by leaders in the industry.

Some of the papers presented are being printed in this issue of The Citrus Industry. Other papers will be presented in later issues of this magazine.

## SAUERMAN SUCCEEDS DRURY

A. V. Sauerman, who presided as president of Florida Citrus Mutual from its organization until the recent annual meeting of that body, and who then was succeeded by Lacy G. Thomas of Groveland, has been chosen as general manager by unanimous vote of the directors.

Since the resignation of Alden Drury as general manager and Merton L. Corey as marketing consultant sometime ago, Mr. Sauerman had acted as temporary general manager up to the time of the recent meeting of the directors, when his appointment was made permanent. His selection would seem to indicate that the policies which he pursued as president will be continued in his role of general manager.

Mr. Sauerman, whose home is in Clearwater, has long been connected with the citrus industry of Florida both as a grower and a shipper. He is a member of the Florida Citrus Exchange, of which organization he is second vice-president.

## MINUTE MAID BUYS CARNEY GROVES

Further indication of the consolidation of grove properties in Florida is seen in the purchase of the Carney Grove in Marion county by the Minute Maid organization.

The Carney Grove, comprising 630 acres, has long been known as one of the outstanding grove properties in the state. Situated on Lake Weir, always given the most careful attention, it has been for years one of the show places among Florida citrus groves. Its purchase by Minute Maid is additional proof that "Big Money" considers Florida citrus grove property a safe, sane and profitable investment.

## "THE INDUSTRY THAT LAID A GOLDEN EGG"

Under the above title Collier's Magazine in its issue of August 12 devoted several pages of subject matter and illustrations to the phenomenal growth of the citrus industry in Florida, giving much of the credit for this phenomenal growth to the recent introduction of citrus concentrates into the markets of the land.

"Citrus concentrates," says the article, "has bitten into the markets of both the canner and the fresh fruit packer, and to what extent this will continue is a matter for heated debate in Florida. Twenty-two million gallons of it will flow into U. S. kitchens this year from 500,000-600 frosty cans."

The article, written by John Conner, gives major credit for the discovery of citrus concentrates to such well known leaders in citrus research as Dr. L. G. McDowell, director of research for the Florida Citrus Commission; Dr. Edwin L. Moore and Cedric Atkins, Research Fellows at the Florida Citrus Experiment Station, Lake Alfred; Dr. Arthur L. Stahl, director of tropical food research at the University of Miami, and Marvin S. Knight, New York advertising man who got the first frozen citrus concentrate on the market.

While other factors have been at work in bringing the Florida citrus industry out of the red and bringing stability to the market at prices profitable to the grower, the magazine concludes that the major credit for the transformation from red to black is due the men whose research resulted in placing frozen concentrates in easily available form for American housewives.

Forecasters and prophets in the citrus industry, national, state and local, predict that Florida this year will produce a citrus crop well over 100,000,000 boxes, with something like 65,000,000 boxes of oranges and upwards of 35,000,000 boxes of grapefruit.

Tropical hurricanes during August which for a time had Florida citrus growers on the anxious seat, have so far given the state a wide berth. Florida groves could stand a heavy downpour of rain, if unaccompanied by hurricane winds.

A spirit of optimism exists among the citrus growers of Florida as a new shipping season approaches. While it is not to be expected that last season's top prices will rule throughout the season, profitable prices are anticipated.

# Trends In The Citrus Industry

## As They Affect Small Growers

When presented with the title of the subject I am assigned to discuss, I realized that there might be in the audience some of the intelligentia, and I realized that in making this, my maiden appearance, before the Citrus Growers Institute, it might behoove me to be very careful of my grammar and even my rhetoric. I was fearful lest some of these eminent linguists fail to grant me protective coverage by the blanket of charity, even though it is a maiden effort.

Accordingly, I have sought assistance, and had I found it I would also say guidance, from the greatest recognized authority of the nation on words and their meaning—Webster's unabridged dictionary. My subject, "Trends in the Citrus Industry as They Affect the Small Grower", immediately suggested to me two outstanding questions: What are **trends**, and what, in our industry, is a **small grower**? To further befuddle my mind, Webster defines the word "trend" as meaning "to roll or turn about; to revolve; turn; to run; to bend to pass along." I was inclined personally to accept the definition "run" or "pass along" and act accordingly; but realizing that some of our members who pay my salary might become inquisitive as to my doing, I decided instead to accept the definition "to bend" insofar as the topic assigned is concerned. When used as a nautical term Webster defines "trend" as the "lower end of the shank of an anchor where it begins to thicken". The word "thicken" impressed me because it so properly described my mental reaction as I read and re-read my topic. "Trend" also is defined as "inclination in a particular direction or course." Upon more mature reflection I decided that it was doubtless intended that I should interpret the word to mean this last-named definition. It was still incumbent upon me to learn the meaning of the word "small".

So, continuing my search of Webster's unabridged, I found that some of the meanings attributed to this word are "having little size com-

MURL E. PACE, GEN. MGR.,  
UNITED GROWERS & SHIPPERS  
ASSN., ORLANDO, FLA.

Delivered Before The Citrus Growers  
Institute, Camp McQuarrie, Astor  
Park, August 30, 1950.

pared with other things of the same kind; diminutive; little, or not large in quality, number, duration, value or the like. Trivial; insignificant." I could hardly accept as applicable these "trivial" and "insignificant" definitions when I know of a single five-acre pink grapefruit grove that returned to its owner last season in excess of \$10,000. Further definitions of "small" discovered by me in Webster are "of little ability or importance in one's sphere; not of marked talent or distinction in any line; diluted or weak; thin, as for example, small beer. Not large-minded; petty; ungenerous; mean." Now, no grower would wish me to accept any of these definitions. With regard to farms, the dictionary further states that the term "small" "does not include any farm, however small, from which the occupier derives his main support." I could not, from all of the Websterian lore, derive a great deal of help in attempting a determination of what is a small grower. I realize that we formerly regarded a small citrus grower as one owning 5, 10, or possibly 20 acres of grove. That was in years of the not too distant past when on-tree prices were much lower than they were during World War 2, and during the seasons of 1948-49 and 1949-50. Now we have single concerns owning up to around 20,000 acres, and numerous others with holdings of  $\frac{1}{4}$  to  $\frac{1}{2}$  this amount. In the light of this situation is the owner of 100 acres a small grower? Is the owner of 500 acres a small grower? Is the owner of 1,000 acres a small grower? I would not like to answer no, and be forced to prove my statement.

The trends affecting the citrus industry have been mainly upward since the beginning of this century

fifty years ago. But to get the picture within comparatively recent years, the average annual production of all citrus in the United States for the ten-year period 1926-35 was 70 million boxes, of which Florida furnished 26.1 million, with the 1934-35 Florida on-tree price average for oranges 86c per box, and grapefruit 35c. Prices for the 1935-36 season were considerably higher. The five-year 1936-41 average annual production of all U. S. citrus was 122 million boxes, with Florida supplying 47.6 million. Florida on-tree orange prices averaged for the 1940-41 season 79c, grapefruit 33c and tangerines 64c. For the 1941-46 period, U. S. average annual production amounted to 165.3 million boxes, with Florida furnishing 70.6 million. Florida on-tree prices for oranges for the 1945-46 season averaged \$2.37, grapefruit \$1.27, and tangerines \$2.64. During the 1946-47 season national production was 192 million boxes (the highest to date), with Florida supplying 87.6 million. Florida oranges that season averaged 95c, grapefruit 63c and tangerines \$1.58. It was in this season that Florida for the first time exceeded California in the production of oranges. The 1947-48 U. S. production dropped to 189.1 million with Florida at 95.6 million—more than half of the total. The 1947-48 Florida on-tree price average for oranges was 63c, grapefruit 26c, and tangerines 99c. The 1948-49 U. S. production dropped further to 159.4 million boxes, with Florida furnishing 93.1 million. In 1948-49 Florida oranges averaged on-tree \$1.36, grapefruit 64c and tangerines \$1.47. In the 1949-50 season, total U. S. production was 155.5 million boxes, of which Florida supplied 87.3 million. Florida orange prices averaged on-tree \$2.16; grapefruit \$1.79, tangerines \$1.51. All prices herein quoted for oranges and grapefruit represent average sales of all varieties for all uses, but prices quoted on tangerines represent only sales for use in fresh form.

These figures show that the trend

of both production and price, in spite of various peaks and valleys, has been actually upward throughout the modern history of the industry. The on-tree price for oranges has jumped from 86c per box in 1934-35, to \$2.16 per box in 1949-50. Grapefruit on-tree price has increased from 35c per box in 1934-35, to \$1.79 in 1949-50. Tangerine price for fresh use has moved from 64c in 1940-41 to \$1.51 in 1949-50.

Acreage has of course increased, and this in the main accounts for the production increase. U. S. citrus bearing acreage in the 1919-20 season totalled 282.1 thousand acres, and in the 1948-49 season 876.2 thousand. This represents more than 300% increase in acreage, whereas production increased from 35.7 million boxes to 159.4 million, or more than 400% for the same period of time. Florida producing acreage in 1919-20 was 84.1 thousand acres, as compared with 413.5 thousand in 1948-49. This represented a Florida acreage increase of nearly 500%. The Florida production for this period of time rose from approximately 14 million boxes to over 93 million, an increase of nearly 700%.

Consumption has likewise increased to keep pace with production, and this is due to generally improved sales efforts, including a greater amount of and better advertising; and to constant improvement in the quality of the products offered to the public. In recent years the canning deal has developed into a life-saving enterprise for the grower. The much discussed and cursed days of the nickel-a-box "drops" for cannery use were a blessing in disguise. Those enterprising pioneer cannery men who started by that method and were thus able to begin educating the American consumer to eat and drink canned citrus products, should be properly acclaimed as major benefactors by all growers alike. Those canned products, then cheap in price (perhaps in quality, too), served a laudable purpose. Those pioneer cannery men were in the main independents, seeking only legitimate profit. The profit element of course motivated their efforts and that was as it should have been. As their infant industry expanded, others including cooperatives entered the field, and a race was on for improved quality and greater and wider-spread consumer acceptance.

No longer were "drops" used. Growers received something for their fruit, sometimes merely a salvage price and at other times a reasonable price. This canning progressed to a point where a fine product was turned out and a good price usually paid to the grower. Then came the Cinderella product, frozen concentrate, which has already taken its place in the refrigerators of millions of homes and which if it continues to be properly manufactured, will increase in consumption as rapidly as additional food retailers install adequate equipment. It is reasonable to assume that consumption will also increase in markets already well-tapped. The Florida Citrus Commission commodity advertising will help, and some of our concentrate manufacturers are spending huge sums in advertising their own private brands. This concentrate advertising is, in my opinion, the most effective private brand advertising ever employed in the Florida deal. And this is no reflection on the splendid job which has been done over the years by Indian River fresh fruit operators.

The increased returns to the Florida grower for the 1949-50 season were influenced by several factors. Among these were the California and Texas freezes of January, 1949, and the Citrus Code enacted by the 1949 Florida Legislature which has caused to be maintained standards of quality insuring to consumers an acceptable and pleasing Florida citrus product, both fresh and processed. Florida growers should be constantly on the alert to, in the future, protect this Code from mutilation at the hands of those who would weaken or destroy it for their own temporary personal gain.

The rapid expansion of our frozen concentrate has been another potent factor to materially influence the prices received by growers in 1949-50. Every reasonable encouragement should be extended the manufacturers of this product.

All of these trends collectively have tended to improve the lot of the small grower equally with that of the large grower; and I shall leave it to you to differentiate between the two and to determine in your own mind where the line of demarkation should be drawn between them. I emphasize that I have seen no trends that should affect the small grower any differently than they will other grow-

ers.

Some of the prices received last season by Florida growers were not normal prices; and some were not economically justified or sound. We have a constantly increasing crop to sell, and if and when we price it above the buying power or the ideas of Mrs. America, we will force ourselves out of the market and "kill the goose that laid the golden egg". This condition almost arose during the 1949-50 season, when some oranges brought as high as \$3.50 per box "delivered in" at the processing plant. Had this price maintained much longer, it would have virtually killed the market for our frozen concentrate, and the repercussions from that atomic calamity might well have brought us back to red ink for this season and possibly for others to follow. Since for a time last season it was definitely a seller's market, we had a clear demonstration of how far producers will go to obtain the immediate high dollar without adequately measuring its effects on subsequent seasons. It is just as vital to the producer's interest as it is to all other factors that we sell our product at a fair price, which price will, if the quality continues to be protected, carry it rapidly into the channels of consumption. A well organized business would have protected, and would in the future protect itself against over-pricing with the same zeal that it would protect itself against under-pricing. Failure to so act indicates lack of adequate organization and lack of business planning for the future.

Several concerns have recently invested millions of dollars in Florida citrus products. I believe this move on their part was essential if they were to protect their prior investments and if they were to continue to deliver our products to the consumer at a price which the consumer can and will pay. As a matter of fact, these giant organizations learned from experience last season that our producers would price themselves, as well as the processors, out of the market if given the opportunity, which they had during a part of the 1949-50 season. I believe that these processors are acquiring or have acquired an adequate backlog of production to insure that our industry will not in the future drive itself from the markets because of excessive prices for the raw products.

True, these concerns are composed of individuals who, as you and I, are human. Some of them may be inclined to occasionally put on a squeeze play like some of our growers put on them a part of last season; but I cannot join with those who see in these developments collectively nothing but chaos for either the small grower or the large.

Yes, the trend of the industry is toward greater controlization. This is not a particularly new development, but because of recent events it is now much more spectacular and on a broader scale. There are those who insist now and have always insisted that growers must belong to a cooperative association if they are to exist. There is much argument in favor of this philosophy. There are others who insist that to exist and prosper they must be free to sell for the high nickel when their judgment dictates. Many members of this school have demonstrated the accuracy of this philosophy as it applies to them personally, by their history of success. There are others who prefer slightly different methods, and who have succeeded through marketing under them. I should dislike to be assigned the task of having to convince either of these schools of thought that they are wrong.

To insure continued prosperity for the citrus industry and economic stability for our state, small growers and large alike need in the future to make use of the best brains available. The putting of favorite sons in high places, and "featherbedding" will not tend to accomplish this result.

The operation of the citrus industry of Florida will always, as in the past, offer a challenge to men and women with initiative and perseverance. It will not be a "windfall" or bonanza, or a "bed of roses" every season; but it should, and I believe will, continue to be a prosperous industry and one which offers as many opportunities in the future as in the past.

### CALIFORNIA AVOCADO TREES AFFECTED BY SALT ACCUMULATIONS...

Excessive leaf burn and premature leaf drop were common evidence of salt damage during the winter and early spring, according to Joe Coony of the Agricultural Extension Service,

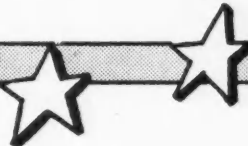
San Diego County. Lack of winter rainfall, conservative use of irrigation water are the main factors held responsible. In general, water quality has been poorer, too.

Liberal use of irrigation water—occasional deep, leaching type of irrigation—will help. Irrigating before the available soil moisture is low—shorter intervals—will also help a little. But only heavy winter rainfall can correct or alleviate the situation.

The common leaf burn is due to a gradual accumulation of chloride salt in the leaf tip during the growing sea-

son. Dry, windy weather in the fall months often aggravates the severity of burning. In extreme cases, trees lose their leaves, green shoots die back, and new growth during February and March may show burning. Sodium, in addition to chloride, seems involved in several cases this year, adds Coony. The avocado has long been recognized as sensitive to salt. In the short history of avocado growing here, there has never been a series of winters with no leaching rainfalls such as experienced in recent years.—California Citrograph.

*Young Tree  
Fertilizer*



NACO recommends the fertilization of young trees in small applications at 60-day intervals, rather than larger quantities of fertilizer less frequently.

NACO'S 5-Star fertilizers applied at 60-day intervals supply the young tree's spreading roots with all the major nutrients and mineral requirements necessary for healthy growth.

NACO discovered these requirements many years ago and developed NACO'S 5-Star fertilizer, utilizing iron and other invaluable minerals to insure the young tree's growth.

Won't you let us explain this program and Compare Results!



ZINC IRON MANGANESE MAGNESIUM COPPER plus BORON

**NACO** *Fertilizer Company*

JACKSONVILLE 1, FLORIDA

# Some Aspects Of The History Of Citrus In Florida

T. RALPH ROBINSON  
TERRA CEIA, FLORIDA

Interest in the early history of citrus fruits has been awakened in recent years by new facts brought to light bearing on their original introduction into the New World. Perhaps chief among these discoveries is that Columbus himself, on his second voyage, was the bearer of seeds that gave rise to the first citrus orchard in America. Credit for this important find is owing to Virginia Kift Barns, who published an account of her discovery in a Florida journal, "The Citrus Industry," October, 1934. Up to that time no record existed in American literature of the exact date or manner of introduction of citrus into this part of the world.

In the course of a survey on raw products carried out by the New York City Department of Markets, Miss Barns consulted Bartolome de las Casas' "Historia de las Indias." This history, written over a period of years (1527-1553), remained unpublished until 1875, when it was finally printed in Spanish. Only parts of this work have yet been translated into English. The portion with which we are concerned is worth considering in some detail. Referring to Columbus' second voyage, Las Casas tells of his departure from the Bay of Cadiz on September 25, 1493, and his stop at the island of Gomera, one of the Canary group (Oct. 11-13), awaiting favorable winds. There he bought seeds and livestock, including eight pigs. Las Casas writes: "From these eight pigs there have multiplied all the pigs which unto this day inhabit the infinite Islands of all these Indies. They bought hens and also grains and seeds of oranges, lemons, citrons, melons, and all kinds of garden vegetables, and this was the origin of everything that there is today of the things of Castile." Thus the exact date of introduction and the exact spot in the Old World—Gomera in the Hesperides, or Canary Is-

The Citrus Industry has been requested by a number of late purchasers of citrus groves in Florida to print something of the history of citrus growing in the state. We know of no better way to present such an article than by reprinting a paper prepared by Mr. T. Ralph Robinson of Terra Ceia, Florida, some years ago, and printed at that time in the Quarterly Journal, Florida Academy of Science. We doubt if a more complete or authentic presentation of the subject could be prepared.—Editor.

lands—from which our first citrus came were both recorded by the Spanish friar.

Las Casas goes on to relate that on November 22, 1493, Columbus sighted the island of Hispaniola (that is, Haiti, also called San Domingo), and "here he unloaded his ships of provisions, livestock and materials, built a fort, storehouse and church, set out orchards, planted gardens, and with great diligence erected a new city." This city was named "Isabella," and was located on the north side of the island, not far from the present town of Monte Cristo in San Domingo.

That the citrus sown by Columbus sprouted and prospered we have no reason to doubt. We have, in fact, Herrera's statement regarding Hispaniola and how well it had proved suited to the Negroes imported from Africa: "Like oranges, they found their proper soil in Hispaniola and it seemed even more natural to them than their native land." Also we are told by the naturalist Oviedo, who was in Hispaniola from 1514 to 1525, that "orange trees from Castile were brought to this Island of Hispaniola and they have multi-

plied so abundantly that they are now past counting; the fruit is very good, both sweet and sour." Thus the spread of citrus must have been very rapid in the two or three decades following the introduction by Columbus. Doubtless Hispaniola thus served as a distributing center for the neighboring islands of the West Indies, for the mainland of the Americas, and possibly for Florida, though there were of course later introductions direct from Spain.

Just when and by whom citrus was first introduced into Florida remains to be discovered. Perhaps a plain statement may repose in some neglected manuscript or publication, as did the long buried record of Columbus' part in bringing citrus seeds to the New World. One of my objects in reviewing this subject is to stimulate historians and others to be on the watch for horticultural information of this kind when engaged on studies of a different order.

It is true that in 1577 Bartolome Martinez, in a letter to the Spanish king, states that he planted with his own hand orange and fig trees at Santa Elena, located on the North Carolina coast. Also, in April, 1579, Pedro Menendez Marques, reporting progress at St. Augustine, states, "there are beginning to be many of the fruits of Spain, such as figs, pomegranates, oranges, grapes in great quantity." This would indicate that citrus had been introduced earlier, possibly by as much as several decades. However, Hume<sup>1</sup> is of the opinion that the introduction of citrus fruits into Florida did not antedate 1565, the year in which St. Augustine was founded. Certain it is that St. Augustine and its environs gradually became one vast orange

1. Hume, H. H., The Cultivation of Citrus Fruits. (New York: Macmillan). 1926.

2. Webber, H. J. and L. D. Batchelor, The Citrus Industry, Vol. 1. (Berkeley and Los Angeles: University of California Press). 1943.

grove, with schooners carrying loads of the golden fruit to the northern coastal cities over 200 years ago.

It is doubtless true, as Hume states, that the introduction into the St. Augustine area was by seed rather than by grafted or layered plants. In the case of citrus that fact would not be as great a handicap as it might be with nearly all of the other important tree fruits of the world, seedlings of which commonly give rise to plants of inferior and widely divergent fruiting types. In fact, the citrus group and one race of mango are the only important tree fruits known that in the vast majority of instances "come true from seed." This is because their seeds develop extra embryos derived from the mother tissue of the seed, the nucellus, these extra embryos being therefore genetically the same as buds taken from the mother plant. Even more remarkable is the fact that sprouts from these extra embryos frequently, and in some varieties entirely suppress or supplant those springing from the true or seminal embryo, so that the resulting population resembles the seed parents in all essential characters. This important fact was not recognized until 1878, when Strasburger announced the polyembryonic nature of citrus seed. It doubtless accounts for the fact that there is a remarkable uniformity, generally speaking, in the fruits produced by the old seedling groves that still furnish an important part of the Florida orange crop. These seedlings doubtless trace their ancestry back to a very few parent orange trees that survived the disastrous freeze of 1835, which all but wiped out the sweet orange groves in Florida.

The Dummitt orange grove on Merritt's Island, opposite Titusville, was one of the few surviving groves after that truly great freeze. This grove was unique in that it was not a seedling grove but was composed of trees top-worked or grafted on sour orange rootstocks at a height of three feet from the ground. The grafting took place about 1830. That they were grafted trees was discovered when I visited the grove in 1926. The graft union is plainly shown in photographs taken at that time, and reproduced in an article on the history of the grove published in the Proceedings of the

Florida State Horticultural Society for 1926. These photographs have also been republished in the recent monumental work on the citrus industry edited by Webber and Batchelor.<sup>2</sup> Webber points out that this was probably the first instance of the working over of a wild sour orange grove; the using of such volunteer trees as grafting stocks did not become a general practice until about 1865 or 1870. Despite the fact that

this old grove has reverted to a jungle condition several times in the past century, there were still some trees alive according to last report. These veteran survivors of a past era should be promptly acquired and cared for by some official State organization, possibly the Florida Forest and Park Service. It is safe to say that if California could boast of such historic trees they would constitute a

(Continued on page 18)

## State Home Demonstrator Dies At Tallahassee

Miss Mary E. Keown, state home demonstration agent for nearly 14 years, died August 11 at her home in Tallahassee.

Born April 12, 1894, at Pomona, in Putnam County, and educated in the public schools of DeLand, at John B. Stetson University and the University of Wisconsin, she rose to the top of her profession in her native Florida and her work was known and respected internationally.

On loan from the Florida Agricultural Extension Service to the U. S. Department of Agriculture from January 1, 1934, to June 30, 1935, she established home demonstration work in Puerto Rico.

Miss Keown joined the Florida Extension Service as Pinellas County's first home demonstration agent on September 16, 1916. After a short while there she became assistant state home demonstration agent in Alabama and later was field agent for the Southern states with the USDA Extension Service in Washington.

For four years she was director of educational advertising for the National Association of Appliance Manufacturers, traveling into all parts of the country and contacting colleges and universities.

She also spent four months in the British Isles, where she introduced the steam pressure canner in the poultry canning program of Ireland, through the Ministry of Agriculture of North Ireland.

In 1921 she organized the American Home Economics Women in Business section of the American Home Economics Association, and was its first national chairman.

She returned to Florida Septem-

ber 15, 1926, as district home demonstration agent for the East Coast. Following her return from Puerto Rico, she resumed the supervision of home demonstration agents in the East Coast district, and on September 16, 1936, was named state home demonstration agent.

She has served on the national committee on extension organization and policy of the Association of Land Grant Colleges and Universities, the committee on 4-H club work of the USDA Extension Service, and the American Home Economics Association's committee on professional training of extension workers. Following World War II she was among representatives of more than 40 countries attending a conference in Washington on extension methods in war-torn countries of Europe and Asia.

She held important war-time assignments, including chairmanship of fat salvage for the State Defense Council.

Progressive Farmer, well known Southern farm journal, named her Woman of the Year 1945 in service to Florida's agriculture and rural home life.

She held membership in the American Home Economics Association, American Dietetics Association, American Association of University Women, State Horticultural Society, Soil Science Society of Florida, and Florida Federation of Women's Clubs. She has been secretary and later president of the Florida chapter, Epsilon Sigma Phi, honorary society of veteran extension workers—men and women.

She was a member of the Presbyterian church.

# The LYONIZER

Department

COMPILED BY THE LYONS FERTILIZER CO.

## Reports Of Our Field Men . . .

### SOUTH POLK, HIGHLANDS AND HARDEE COUNTIES R. L. (Bob) Padgett

Considerable interest has been developed in this territory during the last few weeks over the size and maturity of some early varieties of fruit for this time of year. It is the general opinion of growers and shippers of the area that our fruit is somewhat small for this season of the year, and since it has been so dry the weather is given credit for this condition. Hamlin oranges, while of tendency a small variety, is smaller this year than usual. Grapefruit seems to be plentiful, but here too everyone is complaining about the small sizes. Growers are busy chopping down cover crops and destroying the many vines that we have growing in the groves. Pruning has been very general this Summer and water sprouts have been cleaned out. Most growers have had to use liberal amounts of oil, but this operation is about completed at this time. Rust mite have been very active, and continue to keep growers busy in an effort to keep these pests under control. The Summer flush of growth has been very late and on most properties is just now putting in an appearance. This growth does not appear to be too vigorous at this time.

### HILLSBOROUGH & PINELLAS COUNTIES

T. D. (Tillman) Watson

For some years now this area has been experiencing a great difficulty in bringing scale insects under proper scale control, and this year is no exception as we have had to apply oil in the second spray for good control on many of our properties. We are about to enter a new shipping season, but so far we have had very little activity by fruit buyers and growers are beginning to wonder just how the market will be during the season. Many growers have started testing their fruit for maturity just to get an idea as to how long it will be before the crop will begin moving. While these tests are encouraging there is no fruit ready to move, and we hope that both buyers and shippers will take into consideration the people that have to eat this fruit after it has been shipped, and move only the fruit that will encourage the consuming of Florida

fruit. Cover crops have been cut and the groves are in excellent condition. We have had ample rains in recent days to take care of tree and cover crop requirements but we need plenty additional moisture to build up a good supply for the Winter and Spring dry weather.

### SOUTHWEST FLORIDA Eaves Allison

Citrus groves have shown considerable late July bloom in addition to the several other blooms which we have had this year. Fruit maturity dates promise to be somewhat scrambled this year, although there seems to be a good early crop sizing up now and signs still point to an early start for the shipping season. Scales have been bad and where uncontrolled have resulted in a noticeable loss of wood. Early plantings of tomatoes have started in the Ruskin and Palmetto areas. Moisture conditions are fairly good although some rain could be used at Ruskin. Field tomatoes are up in some areas around Immokolee at this time although drought conditions are hampering the growers in the eastern and northern sections of this area. Early plantings are going on in the Sun City-Bradenton section with Fort Myers to follow later. This is a critical point in the fall picture as none can tell what the winds and waters will be up to during the next 30 or 40 days.

### NORTH CENTRAL FLORIDA V. E. (Val) Bourland

Cover crops have made a very fine growth this Summer and are now being cut into the soil to allow the second growth to develop. The rapid development of cover crops have been somewhat surprising as rains have not been too plentiful, but they have grown fine and are furnishing a lot of organic matter for the soil. There have been few fruit sales made to date. One large grower has sold his orange crop at fair prices, but not as high as last season. He did not move any of his grapefruit and from what we hear at this time it is hard to determine just what we can expect for this variety of fruit during the coming season. Rust mite have been a source of trouble all Summer and continues to be causing

considerable trouble to growers. However, in spite of the mite activity, we have very little damage and as a whole have a nice clean crop of fruit to place on the market.

### POLK COUNTY J. M. (Jim) Sample

We still need rain and if we are to build up our reserve we have to get it during a period of the next few weeks. Of course, we do not want a severe hurricane, but we could stand a little fruit loss at this time to have plenty of water. Groves in many areas are wilting and irrigation pumps are going full force. We have some late bloom that seems to be setting and growing off in good condition. This bloom is not very general, but it is scattered all over the county and means that some groves that did not have any fruit will now have a fair to good crop. Rust mite have been very active and we have noticed that some fruit is showing mite blemish because growers could not get around to spraying fast enough. It now appears that we will have some fruit that will move at an early date this season but most growers while expecting good prices have at the moment no assurance of any price at all.

### WEST CENTRAL FLORIDA E. A. (Mac) McCartney

While it is somewhat early to start the Fall application of fertilizer some growers are fertilizing various varieties to size up fruit and give the tree additional vitality. Tangerines have been fertilized and we are of the opinion that this is a very good practice. We have heard of very few offers being made for fruit on the tree thus far this season. There is a great deal of anticipation by growers but little activity by the buyers. From what we can learn there are excellent prospects for good prices and we are all hopeful that this will be true. After a successful season last year growers have placed their groves in very good condition with ample amounts of fertilizer and a complete spray program that has maintained quality all through the season. As a result of this work we have one of the best crops of fruit that we have produced in a number of years. The sizes are good and the quality of the fruit is excellent so there is no reason for not getting top prices.

## ADVERTISEMENT — LYONS FERTILIZER COMPANY



Well, it's gettin' about time fer us growers to sort of take stock since Summer will be over in a little while and the new season is almost on top of us. There ain't no denyin' that we made money last season and we're looking forward to makin' more this comin' season . . . but right now they is little fruit bein' sold and mighty few indications as to what fruit prices is goin' to be when the shippin' season starts. So while there ain't no way of knowin' just what prices will be it's a purty safe bet that the market will be good once it gits set.

Paul Hayman, county agent over in Polk county, says the government has dropped its proposed plan to insure Florida citrus crops 'cause not enough growers signed up fer the test program. The same thing happened in Orange county which was the only other county included in the test. Looks like growers figgered the insurance should've covered more per box than returns received durin' the basic period.

Vegetable growers is busy gettin' ready to start their Fall plantin' with acreage about normal, and barrin' storms or other disasters they ought to have a good season. Dry weather has hindered activities in some sections but growers is now frettin' and hopin' that too much moisture may not later on destroy their prospects after plants are growin' and startin' to develop crops.

Dr. L. G. McDowell, research director for the Florida Citrus Commission, gives most of his time to problems affectin' the citrus industry, but on the side he's doin' some work on his own pasture at Lakeland to find out what practice is best for developin' fine pastures. He has planted Pangola grass and under a complete fertilizer with plenty of secondary elements he has produced one of the best growths we've seen.

Looks right now like harmony was prevailin' among most all factions of the citrus industry right now and this sure is the proper way to develop markets and move fruit at profitable prices all durin' the season.

**Uncle Bill**

# RAIL OFFICIALS TELL PLAN TO IMPROVE REFRIGERATOR CAR SUPPLY

(Continued from page 8)

be cleaned out when unloaded. Otherwise they have to go to a cleaning track, causing a delay of two days. Not only is time lost but rotting fruit or vegetable material may leave traces that can infect later shipments.

Chairman Kelley promised that United will make a vigorous effort to obtain cooperation of receivers in keeping cars clean and serviceable.

## Worried About Trucks

R. B. White president of the Baltimore and Ohio, citing figures on new cars building by various lines running into hundreds of millions, rammed home the point that the railroads obviously are very much interested in keeping and increasing their produce business. Nobody else has so much money invested in cars and facilities for transporting these products, he said. At the same time, he asserted, the railroads cannot be expected to spend vast sums for the number of cars the industry wants unless they are going to get enough business to keep these cars operating at a profit.

He and others asked the direct questions: "How much business can the railroads expect in 1951 and 1952 from the produce industry? Will more business be diverted to trucks?"

## Rails Can Win Business

Answers were given by various representatives of the produce industry, summing up about as follows: "The railroads can hold their own and win back business lost to trucks if they compete actively. But this means they must speed up their service, improve car supply and adjust their rates. Their chances of gaining business are good in view of possible cut-backs in use of trucks, tires and gasoline if the war situation requires controls."

## But No Farm Truck Regulation

However, representatives of the industry emphatically rejected railroad requests for support in bringing under the I.C.C. regulation trucks hauling agricultural products.

While differing on many points, the areas of agreement between the rail representatives and industry spokesmen were large, and as Chairman Kelley said, the meeting will

lead to further co-operation.

At the head table were Ambrose Seitz, executive vice president of the Union Pacific; Homer King of the I.C.C.; Mrs. C. W. Taylor of the A.A.R.; Mr. Kelley and Mr. Kitchen. Each made brief remarks at the opening of the meeting.

## SOME ASPECTS OF THE HISTORY OF CITRUS IN FLORIDA

(Continued from page 15)

shrine to be visited annually by throngs of citrus growers and other visitors.

Notwithstanding the mass uniformity of citrus seedlings, enough variation has arisen, due to mutation or possibly to hybridization, to give rise to most of the valuable orange varieties grown in Florida today. In fact, the Valencia orange is the only budded variety of sweet orange widely grown in this state that is a direct importation from the Old World. Such varieties as the Parson Brown, Pineapple, Hamlin, Homosassa, Enterprise, and Connor, which constitute the great bulk of Florida shipments (exclusive of Valencia and seedling oranges), owe their origin to selected seedlings propagated by budding. The practice of budding was in many instances resorted to in order to utilize as rootstocks the so-called "wild" sour oranges that had sprung up as volunteers, forming thickets along such streams as the St. Johns and Oklawaha rivers. Indian camping and hunting parties are generally credited with the spread of these "natural groves," the fruit and seeds dropped by them around their camp sites giving rise to large colonies of descendants in the course of time. One such grove in the Okaloacoochee Slough of the Everglades is estimated to have produced the equivalent of 10,000 boxes of sour oranges annually—until overdrainage and subsequent fires practically destroyed it. It is no wonder that some early visitors to Florida thought that oranges were native to the state, when they saw such "wild" trees competing with bays and cypresses for the possession of low rich ground.

(Concluded Next Issue)

Low-headed tung trees, which shade the ground, produce up to twice the yields of taller, open-headed trees, the USDA has found.

## INCREASE IN FARM ELECTRICITY DUE TO RISE OF MOTOR TRANSPORT

In 1934 only about one out of ten American farms had electricity. Now four out of five have it.

Motor transport and highways, by providing service right of way, are credited with a major role in this expansion, according to E. D. Bransome, president of Mack Trucks, Inc.

Mr. Bransome issued these figures in connection with the Golden Anniversary celebrations which Mack Trucks is celebrating this year to mark its fiftieth year in business.

## EDWARD C. JOHNSON JOINS SUPPLY COMPANY

Edward Carlton Johnson, of Pompano Beach, Fla., has been appointed field representative of entomology for the Florida Agricultural Supply Company, it was announced yesterday by Mr. M. C. Van Horn, general manager of the company.

Johnson, a graduate of the University of Florida, class of 1950, where he received his B.S. degree in entomology, will operate in the territory stretching from Homestead to Fort Pierce area on the east coast and from Collier City to Sarasota on the west coast.

First aid kits are essential farm equipment.

## Classified Ads

**CITRUS TREES** — Standard Commercial Varieties and Rootstocks. Information, Recommendations and Prices Furnished Upon Request. Clay Hill Nurseries Co., Box 2380, Tampa, Florida.

**CLEOPATRA MANDARIN** Seed and Seedlings, also contracting for budded trees on Cleopatra.

**RUBY RED GRAPEFRUIT** and all standard varieties on lemon and sour stock. Grand Island Nurseries, Eustis, Florida.

**\$600.00 BUILDS COZY 4 ROOMS** and bath. Concrete block. Stuccoed. Complete instructions \$1.00. Saginaw Realty Agency, Box 992, Saginaw, Mich.

**WANTED** several thousand excellent pencil size sweet orange seedlings and rough lemon seedlings at once. Quote first letter. No trashy stuff wanted. Superior budded citrus trees for sale.

**WARD'S NURSERY**  
AVON PARK, FLORIDA

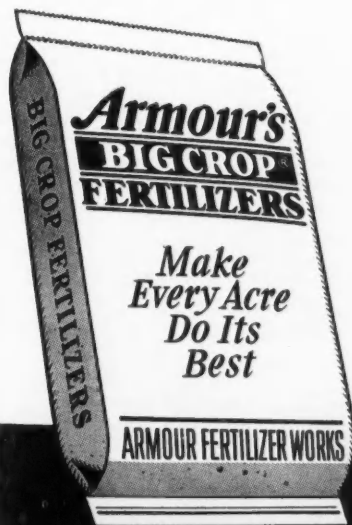


## QUALITY *is the Best Policy*

In these days of high production costs and low prices, quality citrus fruit is an absolute necessity to grove profits. And the grower who gets quality fruit is the one who **CULTIVATES** quality in the fruit, from bud to harvest.

You take no chances with the quality of your fruit when you feed reliable Armour's Big Crop Fertilizers to your trees. Armour's citrus producing Plant Foods are backed by more than a half-century of manufacturing experience. The name "Armour" on the bag assures you balanced, top quality goods, in excellent condition, every time. Place your order now for your requirements.

Drop us a card if you'd like a visit from an Armour Field Representative. There's no obligation for his advice on grove fertilizing problems.



**ARMOUR FERTILIZER WORKS**  
JACKSONVILLE, FLORIDA

PRODUCE  
Maximum Crops  
of  
Finest Quality  
with  
Lyons Fertilizers

## You, Too, Are Invited

To join that large and successful group of Florida Growers who have found that the slogan shown above is something more than a catchy advertising phrase . . . the fact that you can produce Maximum Crops of Finest Quality with Lyons Fertilizers, is a simple statement based upon many years of practical demonstration . . . Many of Florida's most successful citrus growers have profited year after year through the use of Lyons Fertilizers.

You, too, can profit by  
using Lyons Fertilizers

**Lyons Fertilizer Company**  
**Tampa, Florida**

FIELD REPRESENTATIVES:

J. H. Rickborn, Sales Manager, Lakeland  
V. E. Bourland, Winter Garden  
E. A. McCartney, Temple Terrace, Tampa  
James M. Sample, Lake Hamilton

Eaves Allison, Sarasota  
R. L. Padgett, Avon Park  
Norman Tuckett, Minneola  
Tillman D. Watson, Tampa

AGENTS CARRYING STOCK:

Arnold Feed & Seed Store,  
Winter Garden  
John W. Barber, Jr., Webster  
Berryhill Hardware Co.,  
Route No. 3, Box 1055, Tampa  
Norman Blocker, Blanton  
Butler Feed Co.,  
409 13th St., Leesburg  
H. C. Beckett Grove Service,  
Winter Garden  
Dowling Feed Store,  
715 9th St., Bradenton  
Fox Feed Store,  
413 W. Waters Ave., Tampa  
W. B. Goding & Son, Apopka  
Harry Goldberg, Pompano  
Raymond Graham, Zolfo Springs  
Hillsboro Feed & Milling Co.,  
3021 E. Broadway, Tampa  
Harold H. Kastner & Co.,  
1300 French Ave., Sanford  
A. G. Macaulay,  
1039 Central Ave., St. Petersburg  
McCord Feed Store, Winter Garden  
Judson Nichols, Pierson  
Robert A. Nordman,  
232 1/2 N. Clara Ave., Deland  
John W. Parker, Arcadia  
Ruskin Farm Supplies, Ruskin  
Sarasota Feed Co.,  
121 S. Lemon Ave., Sarasota  
A. H. Schrader, San Antonio  
Slaughter & Taylor, Inc.,  
8th Ave., Palmetto  
South Bay Growers, Inc., South Bay  
J. C. Smith & Son, Lakeland  
Smith Feed Store  
110 N. Rodgewood, Sebring  
Sparks & Jordan,  
5511 Nebraska Ave., Tampa  
Taylor's Feed Store, Zephyrhills  
Tampa Feed Co., 5904 Florida Ave.  
Tarpon Feed & Supply Co.,  
Tarpon Springs  
Thornton Feed Co.,  
5718 Nebraska Ave., Tampa  
Tuckett, Inc., Minneola  
Unity Farms, Inc., Pahokee  
G. E. Wetherington,  
Route No. 2, Box 479, Plant City  
Wells Citrus Service & Supply Co.,  
Tavares

**LYONIZE**  
YOUR CROPS

**LYONIZE**  
YOUR CROPS